OLATHE FIRE DEPARTMENT – BUILDING CODES
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City of Olathe – Physical Security Requirements

2018 IBC
Section 1031
OMC 15.02.370

1031.1 Purpose. The purpose of this section is to establish minimum standards that incorporate physical security to make dwelling units resistant to unlawful entry.

1031.1.1 Scope. The provisions of this section shall apply to all new residential structures and to alterations, additions and repairs to existing residential structures as stipulated in the International existing Building Code as adopted by the City in accordance with Chapter 15.06 of the Olathe Municipal Code.

1031.2 Doors. Except for vehicular access doors, all exterior swinging doors of residential buildings and attached garages, including the doors leading from the garage area into the dwelling unit, shall comply with Sections 1031.2.1 through 1031.2.5 for the type of door installed.

1031.2.1 Wood doors. Where installed, exterior wood doors shall be of solid core construction such as high-density particleboard, solid wood, or wood block core with a minimum thickness of one and three-fourths inches (1 ¾") at any point. Doors with panel inserts shall be solid wood. The panels shall be a minimum of one (1) inch thick. The tapered portion of the panel that inserts into the groove of the door shall be a minimum of one-quarter inch (1/4") thick. The groove shall be a dado groove or applied molding construction. The groove shall be a minimum of one-half inch (1/2") in depth.

1031.2.2 Steel doors. Where installed, exterior steel doors shall be a minimum thickness of 24 gauge.

1031.2.3 Fiberglass doors. Fiberglass doors shall have a minimum skin thickness of one-sixteenth inch (1/16") and have reinforcement material at the location of the deadbolt.

1031.2.4 Double doors. Where installed, the inactive leaf of an exterior double door shall be provided with flush bolts having an engagement of not less than one inch into the head and threshold of the doorframe.

1031.2.5 Sliding doors. Where installed, exterior sliding doors shall comply with all of the following requirements:

A. Sliding door assemblies shall be installed to prevent the removal of the panels and the glazing from the exterior with the installation of shims or screws in the upper track.

B. All sliding glass doors shall be equipped with a secondary locking device consisting of a metal pin or a surface mounted bolt assembly. Metal pins shall be installed at the intersection of the inner and outer panels of the inside door and shall not penetrate the frame's exterior surface. The surface mounted bolt assembly shall be installed at the base of the door.

1031.3 Door frames. The exterior door frames shall be installed prior to a rough-in inspection. Door frames shall comply with Sections 1031.3.1 through 1031.3.3 for the type of assembly installed.

1031.3.1 Wood frames. Wood door frames shall comply with all of the following requirements:

A. All exterior door frames shall be set in frame openings constructed of double studding or equivalent construction, including garage doors, but excluding overhead doors. Door frames, including those with sidelights, shall be reinforced in accordance with ASTM F476-84 Grade 40.

B. In wood framing, horizontal blocking shall be placed between studs at the door lock height for three (3) stud spaces or equivalent bracing on each side of the door opening.

1031.3.2 Steel frames. All exterior door frames shall be constructed of 18 gauge or heavier steel, and reinforced at the hinges and strikes. All steel frames shall be anchored to the wall in accordance with manufacturer specifications. Supporting wall structures shall consist of double studding or framing of equivalent strength. Frames shall be installed to eliminate tolerances inside the rough opening.

1031.3.3 Door jambs. Door jambs shall be installed with solid backing in a manner so that no void exists between the strike side of the jamb and the frame opening for a vertical distance of twelve inches (12”) each side of the strike. Filler material shall consist of a solid wood block. Door stops on wooden jambs for in-swinging doors shall be of one-piece construction. Jambs for all doors shall be constructed or protected so as to prevent violation of the strike.

1031.4 Door hardware. Exterior door hardware shall comply with Sections 1031.4.1 through 1031.4.6.

1031.4.1 Hinges. Hinges for exterior door hardware shall comply with the following:

A. At least two (2) screws, three inches (3”) in length, penetrating at least one inch (1”) into wall structure shall be used. Solid wood fillers or shims shall be used to eliminate any space between the wall structure and door frame behind each hinge.

B. Hinges for out-swinging doors shall be equipped with mechanical interlock to preclude the removal of the door from the exterior.

1031.4.2 Strike plates. Exterior door strike plates shall be a minimum of eighteen 18 gauge metal with four (4) offset screw holes. Strike plates shall be attached to wood with not less than three inch (3”) screws, which shall have a minimum of one inch (1”) penetration into the nearest stud. Note: For side lighted units, refer to section R328.4.6.

1031.4.3 Escutcheon plates. All exterior doors shall have escutcheon plates or wraparound door channels installed around the lock protecting the door’s edge.

1031.4.4 Locks. Exterior doors shall be provided with a locking device complying with one of the following: Single Cylinder Deadbolt shall have a minimum projection of one inch (1"). The deadbolt shall penetrate at least three-fourths inch (3/4") into the strike receiving the projected bolt. The cylinder shall have a twist-resistant, tapered hardened steel cylinder guard. The cylinder shall have a minimum of five (5) pin tumblers, shall be connected to the inner portion of the lock by solid metal connecting screws at least one-fourth inch (1/4") in diameter and two and one-fourth inches (2 ¼") in length. Bolt assembly (bolt housing) unit shall be of single piece construction. All deadbolts shall meet ANSI grade 2 specifications.

1031.4.5 Entry vision and glazing. All main or front entry doors to dwelling units shall be arranged so that the occupant has a view of the area immediately outside the door without opening the door. The view may be provided by a door viewer having a field of view of not less than one hundred eighty degrees (180º) through windows or through view ports.

1031.4.6 Side lighted entry doors. Side light door units shall have framing of double stud construction or equivalent construction complying with Sections 1031.3.1, 1031.3.2 and 1031.3.3. The doorframe that separates the door opening from the side light, whether on the latch side or the hinge side, shall be double stud construction or equivalent construction complying with Sections 1031.3.1 and 1031.3.2. Double stud construction or construction of equivalent strength shall exist between the glazing unit of the side light and wall structure of the dwelling.

1031.5 Street numbers. Street numbers shall comply with Section 501.2.

1031.6 Exterior lighting. Exterior lighting shall comply with the Section 210-70 of the National Electric Code as adopted by the City in accordance with Chapter 15.14 of the Olathe Municipal Code.

1031.7 Alternate material and methods of construction. The provisions of this section are not intended to prevent the use of any material or method of construction not specifically prescribed by this section, provided any such alternate has been approved by the enforcing authority, nor is it the intention of this section to exclude any sound method of structural design or analysis not specifically provided for in the section. The materials, methods of construction, and structural design limitations provided for in this section shall be used, unless the enforcing authority grants an exception. The enforcing authority is authorized to approve any such alternate provided they find the proposed design, materials, and methods of work to be at least equivalent to those prescribed in the section in quality, strength, effectiveness, burglary resistance, durability, and safety.